JIM M. COPPINGER
COUNTY MAYOR

DAV...
DIRECT...
BUILDING INSPECTI...

HAMILTON COUNTY, TENNESSEE

October 1, 2013

Hamilton County adopted the 2009 International Energy Conservation Code effective July 1, 2013. This code regulates the minimum energy conservation requirements for new buildings, both commercial and residential. Listed below are **some** changes from the 2006 IECC for residential construction.

1. A Duct Tightness Test (duct blaster) and Air Sealing Test (blower door) shall be done by a third party verifier.

2. Hamilton County Residential Energy Code Compliance Certificate shall be completed and signed by a third party verifier. The certificate shall be posted next to the electrical distribution panel prior to final inspection.

3. A Third Party Verifier is an approved independent person or firm responsible for conducting testing to verify a project's compliance with the 2009 IECC. The verifier shall not be an employee of the general contractor or the HVAC contractor.

4. Attic knee walls shall have R-19 batts (6" walls) or insulation form board and insulation batts that equal R-18 (R-5 foam board + R-13 batts). Foam board may have to be protected by section 316 of the 2012 IRC.

1250 MARKET STREET, SUITE 1020 • CHATTANOOGA, TN 37402 • PHONE (423) 209-7860 • FAX (423) 209-7861

Hamilton County Residential Energy Code Compliance Certificate

HOUSE ADDRESS: _____

BUILDER/DESIGN PROFESSIONAL NAME: _____

COMPANY: _____ PHONE: _____

EMAIL: _____

ENVELOPE SUMMARY (*To be completed by Builder or Design Professional.*)

FLAT CEILING/ATTIC	_____R-VALUE	WINDOWS:	
SLOPED/VAULTED CEILING	_____R-VALUE	_____SHGC	_____U-FACTOR
ATTIC KNEEWALL	_____R-VALUE		
EXTERIOR WALL	_____R-VALUE	SKYLIGHT:	
ABOVE GRADE MASS WALL	_____R-VALUE	_____SHGC	_____U-FACTOR
BASEMENT STUD WALL	_____R-VALUE		
BASEMENT (CONTINUOUS)	_____R-VALUE	OPAQUE DOOR (<50% Glazed):	
CRAWLSPACE STUD WALL	_____R-VALUE	_____SHGC	_____U-FACTOR
CRAWLSPACE (CONTINUOUS)	_____R-VALUE		
FLOOR	_____R-VALUE	OTHER INSULATION COMMENTS:	
CANTILEVERED FLOOR	_____R-VALUE		
FOUNDATION SLAB	_____R-VALUE	_____	

MECHANICAL SUMMARY (*To be completed by HVAC Contractor.*)

NUMBER OF HEATING AND COOLING SYSTEMS: _____

HEATING SYSTEM 1 TYPE (choose one) ☐ GAS: _____AFUE ☐ AIR-SOURCE HEAT PUMP: _____HSPF ☐ OTHER

COOLING SYSTEM 1 TYPE (Standard DX, Heat Pump, Geothermal, Etc.) _____

COOLING SYSTEM 1 EFFICIENCY: _____ ☐ SEER ☐ EER ☐ OTHER

HEATING SYSTEM 2 TYPE (choose one) ☐ GAS: _____AFUE ☐ AIR-SOURCE HEAT PUMP: _____HSPF ☐ OTHER

COOLING SYSTEM 2 TYPE (Standard DX, Heat Pump, Geothermal, Etc.) _____

COOLING SYSTEM 2 EFFICIENCY: _____ ☐ SEER ☐ EER ☐ OTHER

WATER HEATER ENERGY FACTOR: _____Ef FUEL TYPE: ☐ GAS ☐ ELEC ☐ OTHER

FIELD TESTING (*To be completed by a qualified Third-Party Verifier*)

BUILDING ENVELOPE TIGHTNESS:

FAN FLOW AT 50 PASCALS: _____ CFM_{50} TOTAL CONDITIONED VOLUME: _____ ft^3

$ACH_{50} = CFM_{50} \times 60 / Volume =$ _____ ACH_{50} (*must be less than 7 ACH_{50}*)

DUCT TIGHTNESS TESTING:

SYSTEM	METHOD* (PCO, PCT, RIT)	CFM_{25}	AREA SERVED (ft^2)	TEST RESULTS**	COMMENTS
1					
2					

* **PCO** (Post Construction Leakage to Outdoors) 8% max; **PCT** (Post Construction Total Leakage) 12% max; **RIT** (Rough-in w/Air Handler installed) 6% max

** CFM_{25} per 100 ft^2 of Conditioned Floor Area = CFM_{25} x 100 / Conditioned Floor Area Served

BUILDING ENVELOPE TIGHTNESS / DUCT TIGHTNESS TEST CONDUCTED BY:

NAME: _____ SIGNATURE: _____

COMPANY: _____ QUALIFICATION: ☐ HERS ☐ BPI ☐ DET

Hamilton County Residential Energy Code Air Barrier and Insulation Checklist

COMPONENT	CRITERIA	Must Correct	Verified	N/A
Air barrier and thermal barrier	Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier.	☐	☐	☐
	Breaks or joints in the air barrier are filled or repaired.	☐	☐	☐
	Air-permeable insulation is not used as sealing material.	☐	☐	☐
	Air-permeable insulation is inside of an air barrier.	☐	☐	☐
Ceiling/attic	Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed.	☐	☐	☐
	Attic access (except unvented attic), knee wall door, or drop down stair is sealed.	☐	☐	☐
Walls	Corners and headers are insulated.	☐	☐	☐
	Junction of foundation and sill plate is sealed.	☐	☐	☐
Windows and doors	Space between window/door jambs and framing is sealed.	☐	☐	☐
Rim joists	Rim joists are insulated and include an air barrier.	☐	☐	☐
Floors (including above-garage and cantilevered floors)	Insulation is installed to maintain permanent contact with underside of subfloor decking.	☐	☐	☐
	Air barrier is installed at any exposed edge of insulation.	☐	☐	☐
Crawl space walls	Insulation is permanently attached to walls.	☐	☐	☐
	Exposed earth in unvented crawl spaces is covered with Class I vapor retarder with overlapping joints taped.	☐	☐	☐
Shafts, penetrations	Duct shafts, utility penetrations, knee walls and flue shafts opening to exterior or unconditioned space are sealed.	☐	☐	☐
Narrow cavities	Batts in narrow cavities are cut to fit, or narrow cavities are filled by sprayed/blown insulation.	☐	☐	☐
Garage separation	Air sealing is provided between the garage and conditioned spaces.	☐	☐	☐
Recessed lighting	Recessed light fixtures are air tight, IC rated, and sealed to drywall. Exception—fixtures in conditioned space.	☐	☐	☐
Plumbing and wiring	Insulation is placed between outside and pipes.	☐	☐	☐
	Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation extends behind piping and wiring.	☐	☐	☐
Shower/tub on exterior wall	Showers and tubs on exterior walls have insulation and an air barrier separating them from the exterior wall.	☐	☐	☐
Electrical/phone box on exterior wall	Air barrier extends behind boxes or air sealed-type boxes are installed.	☐	☐	☐
Common wall	Air barrier is installed in common wall between dwelling units.	☐	☐	☐
HVAC register boots	HVAC register boots that penetrate building envelope are sealed to subfloor or drywall.	☐	☐	☐
Fireplace	Fireplace walls include an air barrier.	☐	☐	☐

AIR BARRIER AND INSULATION INSPECTION CONDUCTED BY:

NAME:_____ DATE:_____

SIGNATURE:_____ PHONE:_____